



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Ralph M. ELLISON et al.

Title:

COMPOSITIONS AND METHODS FOR THE TREATMENT OF PRIMARY AND METASTATIC NEOPLASTIC DISEASES USING ARSENIC

COMPOUNDS

Appl. No.:

10/649,944

Filing Date:

08/28/2003

Examiner:

Not yet assigned

Art Unit:

1614

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §1.56

Mail Stop Amendment Commissioner for Patents PO Box 1450 Alexandria, Virginia 22313-1450

Sir:

Submitted herewith on Form PTO/SB/08 is a listing of documents known to Applicants in order to comply with Applicants' duty of disclosure pursuant to 37 CFR §1.56. A copy of each listed document is being submitted to comply with the provisions of 37 CFR §1.97 and §1.98.

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* art reference against the claims of the present application.

TIMING OF THE DISCLOSURE

The listed documents are being submitted in compliance with 37 CFR §1.97(b), before the mailing date of the first Office Action on the merits.

RELEVANCE OF EACH DOCUMENT

Any document listed on the attached PTO/SB/08 was cited as being relevant during the prosecution of the corresponding European applications. A copy of each of the European Search Reports is attached setting forth the portion of each document considered relevant by the examiner. An English-language counterpart of the foreign-language documents has not been provided. The absence of a translation or an English-language counterpart document does not relieve the PTO from its duty to consider any submitted document (37 CFR §1.98 and MPEP§609).

Applicants respectfully request that any listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 CFR §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741.

Respectfully submitted,

Stephen A. Bent

Attorney for Applicant Registration No. 29,768

FOLEY & LARDNER LLP

Customer Number: 22428

Telephone:

(202) 672-5404

May 201

Facsimile:

(202) 672-5399

MODIFIED PTO/SB/08 (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control

number.

Sheet

Substitute for form CARNOT INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Date Submitted: May 10, 2004

of

(use as many sheets as necessary)

Complete if Known		
Application Number	10/649,944	
Filing Date	08/28/2003	
First Named Inventor	Ralph M. ELLISON	
Group Art Unit	1614	
Examiner Name	Unassigned	
Attorney Docket Number	077319-0384	

U.S. PATENT DOCUMENTS						
Examiner Initials*	2	U.S. Patent Document			Date of Publication of	Pages, Columns, Lines, Where Relevant
	Cite No. ¹	Number	Kind Code ² (if known)	Name of Patentee or Applicant of Cited Document	Cited Document MM-DD-YYYY	Passages or Relevant Figures Appear

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. ¹	Foreign Patent Document Office ³ Number ⁴ Kind Code ⁵ (if known)	Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶	
		FR 2 699 820	Eric PICHOT	12/24/1992			

	NON PATENT LITERATURE DOCUMENTS						
Examiner Initials*	Cite No. ¹						
		International Search Report					
		Matthew BLOCK et al., "Biological Studies with Arsenic IV. The Histopathiologic Effect of Arsenic Upon the Hematopoietic Tissues of Patients with Leukemia", The Journal of Laboratory and Clinical Medicine, Vol. 41, No. 4, 4/1953, pp. 499-515.					
		P. ROUSELLOT et al., "Arsenic derivatives: Old drugs for new indications!, Les Derives Arsenicaux: De Vieux Medicaments Pour Des Indications Renouvelees", Hematologie, Vol. 4, no. 3, 5/1998, pp. 95-97.					
		P. ROUSELLOT et al., "Arsenic trioxide (AS2O3) and Melarsoprol induce myeloma cell apoptosis in vitro with a preferential effect on tumoral cells in patients' bone marrow", BLOOD, vol. 90, no. 10, 11/15/1997, page 325A.					
:		Z. XIE et al., "Melasoprol and arsenic trioxide increase cell death on doxorubicin-resistant human leukemia and myeloma cells by regulating expression of BCL-2 apoptosis regulatory family", BLOOD, vol. 90, no. 10, 11/15/1997, pp. 495 A.					
		DATABASE EPODOC 'Online! European Patent Office, the Hauge, NL., CN1180563, 5/6/1998, Zhao QINGTUAN: XP002260136 *abstract*.					
		International Search Report					
		Edward B. SILBERSTEIN, "Radionuclide Therapy of Hematologic Disorders", Seminars in Nuclear Medicine, Vol. 9, No. 2, 4/1979, pp. 100-107.					
• • • • • • • • • • • • • • • • • • • •		David A. SEARS MD, "History of the Treatment of Chronic Myelocytic Leukemia", American Journal of the Medical Sciences, Vol. 296, No. 2, 8/1988, pp. 85-86.					

$\overline{}$		
Examiner	Date	
Signature	Considered	
Olg. Gland		

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, PO Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, PO Box 1450, Alexandria, Virginia 22313-1450.

¹ Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO 002.119 Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Skind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

MODIFIED PTO/SB/08 (08-00) Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control

nu<u>mber.</u>

number.							
	Substitute for form	1449B	/PTO		Complete if Known		
	INFORMATION D	ISCLO	SURE	Application Number	10/649,944		
	STATEMENT BY	APPLI	CANT	Filing Date	08/28/2003		
	Data Cubasittadi N	10,410	2004	First Named Inventor	Ralph M. ELLISON		
Date Submitted: May 10, 2004				Group Art Unit	1614		
(4	ise as many sheets	s as ne	cessary)	Examiner Name	Unassigned		
Sheet	2	of	2	Attorney Docket Number	077319-0384		

Examiner Initials* Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published. Zhi-Xiang SHEN et al., "Use of Arsenic Trioxide (As ₂ O ₃) in the Treatment of Acute Promyelocytic Leukemia (APL); II. Clinical Efficiacy and Pharmacokinetics in Relapsed Patients", Blood, Vol. 89, No. 9, 5/1997, pp. 3354-3360. International Search Report W. ZHANG et al., "The induction of apoptosis and cell cycle arrest by arsenic trioxide in lymphoid neoplasms", Leukemia (1998), vol. 12, no. 9, 9/1998, pp. 1383-1391. John G. KIDD, "EFFECTS OF ARSENIC AZOPROTEINS ON MOUSE LYMPHOMA CELLS IN VIVO* With Observations on the Effects of Other "Anti-Lymphoma" Agents and On the Susceptibility to these Effects of Lymphoma Cells of Various Types", Journal of Experimental Medicine, vol. 108, 1958, pp. 665-684. Jacques DEBRAY, "Treatment of Hodgkin's Disease", Therapie, vol. 9, 1954, pp. 106-118. G. LOTTI, "Abandonment of arsenic in medical therapy of malignant granuloma (Hodgkin's disease): is it justified?!" Revue Medicale Du Moyen-Orient, vol. 24, no. 2, 3/1967 pp. 110-111. International Search Report S. ROSNER, "Immunological Enhancement of Chemotherapy in Advanced Brain Cancer", ACTA.
	(APL); II. Clinical Efficiacy and Pharmacokinetics in Relapsed Patients", Blood, Vol. 89, No. 9, 5/1997, pp. 3354-3360. International Search Report W. ZHANG et al., "The induction of apoptosis and cell cycle arrest by arsenic trioxide in lymphoid neoplasms", Leukemia (1998), vol. 12, no. 9, 9/1998, pp. 1383-1391. John G. KIDD, "EFFECTS OF ARSENIC AZOPROTEINS ON MOUSE LYMPHOMA CELLS IN VIVO* With Observations on the Effects of Other "Anti-Lymphoma" Agents and On the Susceptibility to these Effects of Lymphoma Cells of Various Types", Journal of Experimental Medicine, vol. 108, 1958, pp. 665-684. Jacques DEBRAY, "Treatment of Hodgkin's Disease", Therapie, vol. 9, 1954, pp. 106-118. G. LOTTI, "Abandonment of arsenic in medical therapy of malignant granuloma (Hodgkin's disease): is it justified?!" Revue Medicale Du Moyen-Orient, vol. 24, no. 2, 3/1967 pp. 110-111. International Search Report
	W. ZHANG et al., "The induction of apoptosis and cell cycle arrest by arsenic trioxide in lymphoid neoplasms", Leukemia (1998), vol. 12, no. 9, 9/1998, pp. 1383-1391. John G. KIDD, "EFFECTS OF ARSENIC AZOPROTEINS ON MOUSE LYMPHOMA CELLS IN VIVO* With Observations on the Effects of Other "Anti-Lymphoma" Agents and On the Susceptibility to these Effects of Lymphoma Cells of Various Types", Journal of Experimental Medicine, vol. 108, 1958, pp. 665-684. Jacques DEBRAY, "Treatment of Hodgkin's Disease", Therapie, vol. 9, 1954, pp. 106-118. G. LOTTI, "Abandonment of arsenic in medical therapy of malignant granuloma (Hodgkin's disease): is it justified?!" Revue Medicale Du Moyen-Orient, vol. 24, no. 2, 3/1967 pp. 110-111. International Search Report
	neoplasms", Leukemia (1998), vol. 12, no. 9, 9/1998, pp. 1383-1391. John G. KIDD, "EFFECTS OF ARSENIC AZOPROTEINS ON MOUSE LYMPHOMA CELLS IN VIVO* With Observations on the Effects of Other "Anti-Lymphoma" Agents and On the Susceptibility to these Effects of Lymphoma Cells of Various Types", Journal of Experimental Medicine, vol. 108, 1958, pp. 665-684. Jacques DEBRAY, "Treatment of Hodgkin's Disease", Therapie, vol. 9, 1954, pp. 106-118. G. LOTTI, "Abandonment of arsenic in medical therapy of malignant granuloma (Hodgkin's disease): is it justified?!" Revue Medicale Du Moyen-Orient, vol. 24, no. 2, 3/1967 pp. 110-111. International Search Report
	Observations on the Effects of Other "Anti-Lymphoma" Agents and On the Susceptibility to these Effects of Lymphoma Cells of Various Types", Journal of Experimental Medicine, vol. 108, 1958, pp. 665-684. Jacques DEBRAY, "Treatment of Hodgkin's Disease", Therapie, vol. 9, 1954, pp. 106-118. G. LOTTI, "Abandonment of arsenic in medical therapy of malignant granuloma (Hodgkin's disease): is it justified?!" Revue Medicale Du Moyen-Orient, vol. 24, no. 2, 3/1967 pp. 110-111. International Search Report
	G. LOTTI, "Abandonment of arsenic in medical therapy of malignant granuloma (Hodgkin's disease): is it justified?!" Revue Medicale Du Moyen-Orient, vol. 24, no. 2, 3/1967 pp. 110-111. International Search Report
	justified?!" Revue Medicale Du Moyen-Orient, vol. 24, no. 2, 3/1967 pp. 110-111. International Search Report
	·
	C. DOCNED "Immunological Enhancement of Chamethoropy in Advanced Proin Canada" ACTA
	NEUROL. LATINOAMER. Vol. 21, No. 4, 1975 , pp. 126-132.
	S. SHIMOTSUURA, "STUDIES ON THE ANTINEOPLASMIC ACTIONS OF AS ₂ O ₃ " Shika Gakuho – Journal of Tokyo Dental College Society, vol. 86, no. 8, 1986, pp. 1237-1253.
	P. ZHANG et al., "Treatment of Acute Promyelocytic Leukemia with Intravenous Arsenic Trioxide" Zhonghua Xueyexue Zazhi – Chinese Journal of Hematology, vol. 17, no. 2, 2/1996, pp. 58-60.
	D.A. Sears, "History of the Treatment of Chronic Myelocytic Leukemia", American Journal of Medical Sciences, vol. 296, no. 2, 8/1988, pp. 85-86.
	Y.L. KWONG et al., "Delicious Poison: Arsenic Trioxide for the Treatment of Leukemia", Blood, vol. 89, no. 9, 5/1997, pp. 3487-3488
	Edward B. SILBERSTEIN, "Radio nuclide Therapy of Hematologic Disorders", Seminars in Nuclear Medicine, vol. 9, no. 2, 4/1979, pp. 100-107.

Examiner Signature	Date Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, PO Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, PO Box 1450, Alexandria, Virginia 22313-1450.

¹ Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO 002.119 stepged ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁶Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.